Mercedes-Benz USA, LLC
A Daimler Company

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Section 15.253 of the	)	
Commisssion's Rules regarding operation	)	Docket No. RM-11555
within the band 76.0-77.0 GHz	)	
(vehicle radar systems)	)	
	)	
	)	

TO: The Commission

REPLY COMMENTS
BY THE
MERCEDES-BENZ USA, LLC.

The MBUSA hereby submits the following reply comments in the above captioned matter.

BACKGROUND

The Mercedes-Benz USA, LLC (hereinafter MBUSA) submits reply comments on behalf of its parent company, Daimler Aktiengesellschaft (DAG). MBUSA is responsible for the sales, marketing and customer service for all Mercedes-Benz and Maybach products in the United States and offers drivers the most diverse line-up in the luxury segment with 12 model lines ranging from the sporty C-Class to the flagship S-Class sedans and CL-Class coupes.

Automotive Radar Systems

We wish to express our opposition to the National Radio Astronomy Observatory (NRAO)'s comments to Toyota Motor Corporation's (TMC) petition that the Federal Communications Commission (FCC) should amend 47 C.F.R., Part 15, Section 15.253, "Operation with the bands 46.7-46.9 GHz and 76.0-77.00 GHz," [1] in order to enable the introduction of new vehicular technologies in the United States that can help collision avoidance and safety, and also contribute to driver convenience.

[1] *See* 47 C.F.R. Section 15.253

Mercedes-Benz USA, LLC
One Mercedes Drive
P.O. Box 350
Montvale, NJ 07645-0350
Phone (201) 573-0600
Fax (201) 573-0117
www.MBUSA.com

As originally stated in the FCC's *Report and Order*[2] regarding the 76-77 GHz band, "we recognize that vehicular radar operations in this band may be able to increase the level of safety on highways and benefit the public." Furthermore, the FCC agreed with the Long-Range Automotive Radar Frequency Allocation Group (LARA) that sharing between radio astronomy service (RAS) and secondary space research service (SRS) and vehicle radar operations is possible. At the same time, the FCC concluded that

> "Most significantly, under Section 15.253 of the rules, vehicular radar systems operating in the 76-77 GHz band must not exceed certain emission limits, depending on the mode of operations, at a distance of 3 meters from the exterior surface of the radiating structure, which reduces the likelihood that they will cause interference."

With over ten years experience in deploying our Distronic (long-range radar) technology on approximately 50% of our U.S. products, we are extremely confident that the emission limits of our vehicle's long-range radar system are well within the "distance of 3 meters from the exterior surface of the radiating structure." Furthermore, with the normal operation of our customer's vehicles, we strongly disagree with NRAO's concern that a vehicle's radar beam could possibly "find its way down or near the boresight of a radio astronomy antenna at close range, permanent physical harm to a radio astronomy detector would result."[3] As mentioned by NRAO of some radio telescopes' vicinity to public roads, TMC's new proposal instead focuses on the speed range near to 0 km/h. Under normal driving conditions, and with no relative change in today's decade-long operation of Distronic-equipped vehicles; we are not aware of any long-range radar equipped vehicles causing harmful interference to any US-based radio telescope operating today.

Therefore, we believe the realistic operation of our Distronic (long-range radar) technology has been safe over the last ten years and has not posed any interference issues with RAS sites. In 2006, the recent deployment of Distronic PLUS (long-range & short-range radar) has allowed the adoption of a very special driving situation of 'Stop-N-Go' for very dense, bumper-to-bumper traffic situations. This 'Stop-N-Go' driving situation mostly occurs on highways or even in dense urban areas which realistically are far from known RAS sites.

As noted by the FCC, "also, RAS observatories are few, and are sited and designed to be protected from sources of interference."[4] We realistically believe that a

---

[2] *See* In the Matter of Amendment of Parts 2 of the Commission's Rules to Realign the 76-81 GHz band and the Frequency Range Above 95 GHz Consistent with International Allocation Changes, ET Dkt 03-102, *Report and Order*, FCC 04-20, Section 17, (2004).

[3] *See* National Radio Astronomy Observatory (NRAO) comments; page 2; 18 September 2009.

[4] *See* In the Matter of Amendment of Parts 2 of the Commission's Rules to Realign the 76-81 GHz band and the Frequency Range Above 95 GHz Consistent with International Allocation Changes, ET Dkt 03-102, *Report and Order*, FCC 04-20, Section 17, (2004).

vehicle's long-range radar technology would not normally be operating on access roads to a radio astronomy telescope due to an assumed low speed limit on such an access road, the low number of vehicles regularly using an access road, and the assumed controlled access of the facility's access road by the facility. Therefore, MBUSA still believes the Commission has a unique opportunity to amend Section 15.253 of its Rules and Regulation to adopt reasonable and supportive limits for radiated emissions levels in the 76-77 GHz frequency bands. Due to the nascent deployment of the long-range radar in the automotive industry, we believe that the realistic benefits of public and highway safety are paramount and TMC's petition for rulemaking should be considered by the FCC.

MBUSA will continue to review the reply comments in this proceeding and we appreciate the Commission's consideration of our comments in this matter. If you have any inquiries or correspondence concerning this matter, please feel free to contact Dan Selke, of my staff, at 201-573-2616, or Daniel.Selke@mbusa.com .

Sincerely yours,

FOR

Frank Diertl
General Manager
Engineering Services

Anthony P. La Spada
Associate General Counsel &
Assistant Secretary

Date: October 8, 2009